sensors, such that upon application of pressure at any given junction, corresponding sensors are brought into contact.

[0047] Preferably, said substantially non-conducting material is located to separate between sensors of said first sensing system.

[0048] Preferably, said flexible spacer comprises spacer dots, said spacer dots being concentrated about sensors of said first sensing system.

[0049] Preferably, said flexible spacer is printed onto at least one of said foils.

[0050] Preferably, each sensing system has a set of sensors located within said foil-based sensing arrangement, and wherein each set of sensors is arranged substantially as a grid.

[0051] Preferably, each sensing system has an arrangement of sensors set out to define detection co-ordinates and at least one of said sensing systems comprises scanning control functionality for scanning said detection co-ordinates in a multi-stage scanning operation, thereby to home in on multiple locations.

[0052] Preferably, said arrangement is a grid and said co-ordinates are Cartesian co-ordinates.

[0053] Preferably, said multi-stage scanning operation comprises a first stage of scanning groups of sensors along each axis of said grid, and a second stage of homing in on co-ordinates indicated in said first stage.

[0054] Preferably, said first stage comprises applying a sensing signal to all sensors of each group in a first axis, and reading each sensor in said second axis, and then applying a sensing signal to all sensors of each group in said second axis and reading each sensor in said first axis.

[0055] Preferably, said scanning control functionality is operable to determine whether an ambiguity is present, and, if an ambiguity is present to define suspect sensors as any sensor giving rise to a signal.

[0056] Preferably, said scanning control functionality is further operable to select each suspect sensor one at a time in a first of said axes, to apply a sensing signal thereto, and to read each suspect sensor in a second of said axes.

[0057] According to a second aspect of the present invention there is provided a pressure sensing apparatus for detection of at least two pressure locations, the apparatus comprising:

[0058] an arrangement of pressure sensors set out to define detection co-ordinates, and

[0059] scanning control functionality for scanning said detection co-ordinates in a multi-stage scanning operation, thereby to home in on said at least two pressure locations.

[0060] According to a third aspect of the present invention there is provided a sensor arrangement for superimposing over a visual display screen, comprising:

[0061] a first transparent foil having sensors of a first detection system for detecting a user interaction of a first type, and sensors of a second detection system for detecting a user interaction of a second type, embedded therein, and

[0062] a second transparent foil superimposed over said first transparent foil and flexibly spaced therefrom, having further sensors of said first detection system and of said second detection system embedded therein.

[0063] According to a further aspect of the present invention there is provided a pressure sensing arrangement for superimposing over a visual display screen, comprising:

[0064] a first transparent foil having a first set of parallel pressure sensors,

[0065] a second transparent foil, superimposed over said first transparent foil having a second set of parallel pressure sensors, said transparent foils being orientated such that said first and second sets of transparent foils are respectively orthogonal,

[0066] a substantially non-conductive spacer located between said first transparent foil and said second transparent foil to separate between said foils, said spacer being flexible to allow contact between pressure sensors on respective foils about a point of application of pressure, thereby to transfer a signal between contacted pressure sensors, and

[0067] a scanning controller for controlling a scanning operation to apply signals to said sensors and to read outputs in such a way as to provide unambiguous pressure information concerning every junction on a grid defined by said pressure sensors.

[0068] Preferably, said scanning operation comprises two stages, a first stage of scanning groups of sensors on each foil, and a second stage of homing in on junctions indicated in said first stage, thereby to detect simultaneous applications of pressure at multiple points.

[0069] Preferably, each scanning operation is an exhaustive scanning operation comprising individual testing of each junction.

[0070] Preferably, said first stage comprises outputting a signal to each sensor on one of said foils and detecting at each sensor on the other of said foils, then outputting a signal to each sensor on said other foil and detecting at each sensor on said one of said foils.

[0071] Preferably, said second stage comprises outputting a signal to each sensor, on one of said foils, that has been indicated in said first stage, and detecting at each sensor that has been indicated in said first stage on the other of said foils.

[0072] Preferably, said scanning controller is operable to carry out each of said two stages at substantially twice the frequency of fastest likely changes in a pressure application pattern.

[0073] According to a fourth aspect of the present invention there is provided a method of sensing of a plurality of pressure sensitive points arranged in a grid for detection of simultaneous applications of pressure at a plurality of said points, the method comprising testing said grid such as to obtain an unambiguous pressure detection result for each of said pressure points in said grid.